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A YEAR'S WORK IN MINOR SURGICAL GYNECOLOGY AT THE KENSINGTON HOSPITAL FOR WOMEN.

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MINOR surgical gynecology, embracing the surgery of the pelvic floor, vagina, bladder, and uterus—excluding hysterectomy—has not received much attention at the hands of recent writers. This is partly because the attention of gynecologists has been devoted to the marvellous strides which have been made in abdominal surgery, and partly because this field of work is not so brilliant as that of abdominal surgery. It is true that minor gynecological surgery is not brilliant, but it is very important, and it seems to me that it is in some danger of being neglected by the surgeons of to-day. This fact has led me to report my last year's work in minor surgical gynecology at the Kensington Hospital for Women, and to make certain observations on the various operations named. The following operations have been done:

Removal of vaginal cyst (post-cervical)	1
Clitoridectomy (nymphomania)	1
Excision of carcinomatous nodules (secondary after removal of breast)	3
Uterine polyps (removed)	2
Lipoma (removed)	1
True pelvic abscess (drained after exploratory section had excluded disease of appendages)	1
Atresia of vagina (divided)	1
" " vulva "	1
Cancer of cervix—curetting (death from uræmia)	1
Amputation of cervix—cancer, 1; procidentia, 2	3
Anterior colporrhaphy (oval)	1
" " (Stoltz's)	2
Perineorrhaphy (Hegar's)	1
" (Emmet's)	17
Trachelorrhaphy	6
Dilatation and curetting	18
	60

presented by the author

One death occurred in a case of advanced carcinoma of the cervix, which was thoroughly curetted by Dr. Kelly. Death followed on the eighth day from "cancerous uræmia." This poor woman had been insane for some weeks—the insanity being due supposedly to absorption of septic matter from the decomposing cancer. The operation was done with the hope of relieving this, and also to get rid of the necrotic mass. The other operations in the report were done by myself. The technique employed was quite similar for all cases. The patient's bowels were well cleared out the day before, and were moved by enema the morning of the operation. In addition, the patient had a full bath and a sublimate vaginal douche. Operations were done under ether-anæsthesia in the dorsal position, with the Robb leg-holder and the Kelly perineal pad in use. The vulvar region and vagina were well scrubbed with soap and water, the vulvar hair was shaved, and the parts were well douched with sublimate solution. In this way an aseptic field was secured; all operations were done under irrigation with boiled water, sponges not being used. This technique is a little troublesome, but the results secured amply compensate for the outlay of time.

I have made it an invariable rule to *re*-examine all patients before beginning the operation. This can be done most thoroughly when the patient is anæsthetized. If the uterine appendages are found inflamed and adherent, any proposed operation upon the uterus is abandoned. I believe this to be the only safe rule of practice.

For sutures, silk, catgut, and silkworm-gut have been used. For general purposes I like silk; but it should not be used where the sutures cannot be removed in one or two weeks. Catgut I have found very useful for sutures having but little strain to bear, as, for instance, the upper sutures in perineal operations. Silkworm-gut has the advantage that it is non-absorbent; hence it is to be preferred where sutures must be left in a long time, as, for instance, in the cervix, when the cervix and perineum are repaired at the same sitting. It has the disadvantage of being stiff, which property makes it somewhat hard to remove, and gives the patient some pain. After operations the vagina is carefully dried, a pencil of iodoform (25 grains), together with a strip of iodoform gauze, is introduced, the vulva is sprinkled with a powder of iodoform (1 part) and boric acid (7 parts), and then a cotton pad is placed over the vulva—held in place by a T-bandage. After perineal operations the urine is drawn for two days; after which the patient is allowed to urinate. The gauze is removed after forty-eight hours; after which a sublimate

douche (1 : 2000) is given once daily. The bowels are moved on the second day and regularly thereafter. An abundant soft diet is permitted. The external sutures in perineal operations are removed about the eighth day; the internal sutures at the end of the second week. When the cervix has been repaired at the same time, the cervical sutures are removed at the end of the third week or even later. One should err on the side of leaving the sutures in long rather than that of removing them early.

Patients having perineal operations are permitted to sit up in two weeks; those having a curetting, in three or four days; those having a trachelorrhaphy, in a week, etc.

The secret of success in plastic surgery is good asepsis, and careful, painstaking, and accurate denudation and suturing. I have never failed to secure good union, which has always been primary throughout, with two exceptions—one stitch-hole abscess and one small hemorrhage (hæmatoma).

Dilatation and Curetting.—Within the past ten years professional opinion concerning these operations has fluctuated widely. Before the antiseptic era curetting was considered a dangerous operation. Its danger at that time I feel satisfied was due partly to lack of antiseptic measures, and partly to bad diagnoses. At that time our knowledge of the diagnosis of chronic salpingitis was very imperfect, and many accidents (peritonitis) resulted from operating on the uterus when the tubes contained pus or other septic fluid. Since the antiseptic era, in the hands of men capable of making a diagnosis of uncomplicated disease of the uterus, and of excluding chronic pelvic inflammation, these operations have been done with impunity. Of late, the legitimacy of the operations has been questioned by Dr. Joseph Price, on the ground that many cases of salpingitis and pus tubes have come under his care in which dilatation or curetting has been done. This fact is no argument against the legitimacy of the operations, nor against the fact that, when properly done in uncomplicated cases, the operations are perfectly safe and free from danger.

Did the women seen by Dr. Price (and by others, including myself) have the tubal disease before the uterus was dilated or curetted? Were the operations done under rigid asepsis? I believe that blunders in diagnosis and blunders in asepsis should bear the blame in these most unfortunate cases, and not legitimate surgery. In my own hands no such untoward results have occurred. On the contrary,

under the strict limitations laid down, my confidence in the value and safety of the operations increases as my experience grows.

Dysmenorrhœa.—Three cases of dysmenorrhœa, due to partial development of the cervix, with anteflexion, and characterized by "cramps" during the flow, were treated by dilatation. Dilatation in this class of cases has always given good results. The cause of the "cramps" is a poorly developed cervix with a narrow canal, whose caliber is further lessened by the anteflexion.

A broader experience has induced me to use the dilator for dysmenorrhœa much less frequently than formerly. I consider it absolutely contra-indicated if there is tubal inflammation, and believe that it is of little use in relieving pain, unless the latter is distinctly intermittent and cramp-like in character.

The pains accompanying menstruation due to inflammation of the uterine appendages, or of the uterus, or due to a depressed state of the blood, with pelvic neuralgias, are not benefited by dilatation, and in such cases it should not be done.

Endometritis.—Fifteen cases of uncomplicated endometritis have been treated by dilatation and curetting. Nine of these were cases of fungoid endometritis with resulting uterine hemorrhages. I believe that this procedure best meets the indications in all cases of uncomplicated *chronic* endometritis. By removing the thickened portion of the diseased endometrium and providing a freer vent for the uterine secretions, most cases of endometritis can be cured promptly, and the remainder are much improved. The number of cases in which it is necessary to make intra-uterine applications is thus much reduced, and these women are saved the necessity of undergoing a prolonged course of painful intra-uterine treatment. By promptly curing women with chronic endometritis another important point is gained—the disease is cured before it spreads to the tubes.

The results in my hands have been most satisfactory in cases of fungoid endometritis, especially those of short duration, resulting from abortions. Cases of chronic endometritis with purulent leucorrhœa have been most intractable, and in these cases it has been necessary to make weekly applications to the endometrium (by means of the applicator) of pure carbolic acid, Churchill's tincture of iodine, or a saturated solution of chloride of zinc, for some weeks *after* the curetting. I wish to call attention to the small number of cases of uncomplicated endometritis in this series. Omitting the fungoid cases, there were 6 out of 128 women admitted to the hospital. This is about the average in my practice.

In fungoid endometritis I have found the curette so valuable, and other methods of treatment (in marked cases) so futile, that I am unable to understand how those gentlemen who oppose the use of the curette treat these cases. The only other resort is electricity; but the curette will accomplish in a few minutes what it requires weeks or even months to accomplish by electricity.

The results obtained by the curette in uncomplicated endometritis are so good that of late, forgetting the teachings of past experience, certain operators have proposed to treat cases of endometritis complicated by chronic tubo-ovarian inflammation in the same way. It seems to me that careful men cannot protest too strongly against such treatment. In the first place, the danger of setting up fresh salpingitis and peritonitis is acknowledged (except by the few) to be great; and in the second place, should the endometritis be cured (which is doubtful because of pelvic congestion kept up by the tubo-ovarian inflammation), the graver disease of the appendages remains. The wiser plan, if the appendages are diseased, is first to remove them, and then actively treat the endometritis; or if the appendages are but slightly diseased and do not require ablation, to treat the patient by applications of iodine to the vaginal vault, and the use of glycerin tampons, at the same time using every measure to improve the local conditions by general medication.

It happens not infrequently that when the inflamed uterine appendages are removed, an endometritis is left which causes the patient some annoyance. These cases are often reported by those hostile to modern surgery as showing that the abdominal section has failed to cure the patient. These gentlemen have a mental strabismus, and do not see that the section has accomplished the end aimed at, the ablation of the diseased uterine appendages. Whether this alone will cure the patient depends upon whether the particular patient has any other disease. If she has an endometritis, this must be cured; if anæmia, or indigestion, or malnutrition, these must be treated.

I wish to protest against the view that endometritis as a rule causes much distress, except the annoyance of a leucorrhœa, unless it induces hemorrhage. Where women having endometritis suffer much pelvic pain, and are semi-invalids, the cause of the pain or invalidism is to be sought elsewhere—in the uterine appendages, or in the vital organs, or blood state. It is a narrow man who attributes all the symptoms complained of by women to disease of the pelvic organs, and who forgets that women have an unstable nervous system, easily influenced by morbid conditions of the general economy.

In discussing endometritis it should not be forgotten that other conditions besides endometritis can cause a discharge from the uterus. Whatever will cause congestion of the uterus will cause uterine discharge. For example, subinvolution, constipation, feeble heart, lazy habits, malnutrition—as from phthisis, erotism, etc. Treatment addressed to the causative disorder will stop such uterine discharge. This class of cases calls for no treatment of the endometrium.

Stoltz's Anterior Colporrhaphy.—This operation has been done twice during the time covered by this report. It is specially adapted for cases of procidentia in which cystocele is a marked feature. The cases have been treated with most gratifying success by amputating the cervix above the vaginal junction, doing Stolz's operation on the anterior vaginal wall and Emmet's operation on the perineum, the combination of operations being done at one sitting. I have had but one failure in my experience. This was in the person of a woman having complete procidentia, whose tissues had undergone marked fatty degeneration.

Perineorrhaphy.—One Hegar's operation was done on a woman having a patulous introitus. Seventeen operations were done after the manner of Emmet for injuries to the pelvic floor, involving laceration of the levator ani muscle and loss of pelvic support.

It seems strange to me that men who are familiar with the anatomy of the pelvic floor, and with the nature of the injuries it sustains during labor, can differ so widely concerning the nature of the operation required to repair the injuries sustained. Not to consider the lacerations extending into the bowel, there are two general classes of lacerations of the pelvic floor:

1. Lacerations involving the vulvar commissure, and extending scarcely to the vagina, scarcely beyond the plane of the hymen. These are the insignificant lacerations, which at most give rise to a gaping *introitus vaginæ*, but which involve no appreciable loss of pelvic support. Such lacerations are median, and involve no very important muscular structures. The bulbo-cavernosus and the transversus perinei muscles may be divided, but the laceration does not extend far enough up the vagina to reach the levator ani. Usually it is indifferent whether such lacerations are closed or not. The result to be gained is scarcely sufficient to compensate a woman for submitting to a secondary operation. In my opinion, however, even such lacerations should have a primary perineorrhaphy. If a secondary operation is done, the Hegar operation best meets the indications.

The flap-splitting method will answer, but it leaves an ugly fold of tissue at the orifice of the vagina.

2. Lacerations extending along the vagina, and involving more or less of the levator ani muscle or muscles and the deep fascia, according to the extent and depth of the lesion. Such tears, as a rule, not only involve the commissure of the vulva, as in class 1, but also extend up the vagina, and without exception extend up one or both sulci. They are never median. The tough pelvic fascia seems to deflect the laceration to one or other side. But whatever the explanation, it is a fact that deep, extensive lacerations do not extend up the middle line of the vagina, but up one or both sulci. Sometimes the injury is wholly in the vagina, and the commissure of the vulva remains intact. Hence these tears are Y-shaped when the commissure of the vulva is involved and the tear extends up both sulci. They are Y-shaped when the commissure is involved and the tear extends up one sulcus (one arm of the Y is not represented). And they are V-shaped when both sulci are involved and the commissure escapes (the leg of the Y is not represented). The principal tissues involved in the injury are the levator ani muscle or muscles and the deep fascia. The injury extends two or three inches from the plane of the skin perineum. As is well known, pelvic support depends upon the integrity of the levator ani muscles and the pelvic fasciæ; hence the loss of support resulting from the injury is in direct ratio to its extent. When the lesion is extensive, the bladder, bowel, and uterus prolapse.

A very careful and somewhat extensive study of this subject from the clinical side has convinced me that the foregoing propositions represent the facts in the case, and are not theoretical. I believe that the reason certain gynecologists of prominence do not accept this pathology is because they do not see much of obstetrics, and they have not studied the nature of lacerations immediately after labor. Anyone can convince himself of the truth of the foregoing statements by studying recent lacerations.

(For the sake of completeness, submucous laceration or overstretching of the levator ani muscle may be called class 3.)

For the cases embraced under class 2, no operation will yield such results as the Emmet operation. The important lesions are in the sulci of the vagina, and can only be reached by denuding and suturing the sundered tissues in the sulci. As a means of narrowing the vagina it has the further advantage of making use of the natural folds of that canal. The walls of the vagina fold upon themselves in such a way that the lines of contact in transverse sections make

the letter H. The sulci of the posterior wall represent the lower half of the legs of the H. It will be noticed that the walls of the sulci lie naturally together, so that, if they are denuded and sutured, the parts come together surface to surface. This is a very positive advantage in securing strong union, in addition to the advantages of raising the posterior wall of the vagina against the anterior, and of making a new *mediate* attachment of the vagina to the levator ani muscles.

I need not dwell upon the advantages possessed by the operation in cases of well-marked rectocele, in which the sulci are very deep. In no other way can the rectocele be so well rolled into the vagina.

My experience with the operation embraces some fifty cases. The results have been uniformly good, with one exception—the case of procidentia already referred to.

The other operations which are recommended for the cure of this class of lacerations are the median operation of Hegar (or some slight modification of it) and the flap-splitting operation of Tait.

Median operations are based upon the theory that the injury sustained is rupture of the perineal body, and that the operation is to restore this body. Time will not permit me to discuss this question *in extenso*. The nature of the injuries have already been considered, and they are lateral, not median. The old theory of the nature and function of the perineal body has been disproved by Emmet, whose views I accept; hence it appears to me that the indifferent results secured by median operations is due to the fact that they are based on a false conception of the anatomy and of the injuries of the pelvic floor.

The advantages of the flap-splitting method are even less than those of the method of Hegar. In the rules laid down for performing the flap-splitting operation, we are told not to make the incisions deeper than a half-inch (from the surface of the skin perineum); that is to say, lesions situated further up the vagina than one-half an inch from the skin surface of the perineum are not affected by this operation. Inasmuch as the entire levator ani muscle lies above this plane, it is evident that the Tait operation is worthless in the class of lacerations under consideration. The Tait operation accomplishes just about what the old Baker Brown episiorrhaphy did—it narrows the orifice of the vulva.

What I have said about this operation is based upon the anatomical considerations involved and upon the results obtained by a prominent professor in this city. At least twelve patients who have been oper-

ated upon by him have been seen by me at the clinic for diseases of women at the Northern Dispensary. All had a narrow vulvar orifice, and all had more or less rectocele, with deficient pelvic support, and the symptoms complained of before operation. My personal experience embraces one case, which was sufficient to demonstrate to me the lack of anatomical basis in this operation.

TRACHELORRHAPHY.—Trachelorrhaphy was done six times. Experience adds to my appreciation of the value of this operation in appropriate cases. I am satisfied that the dangers and failures to achieve good attributed to it by some operators depend upon poor judgment in the selection of cases.

Either insignificant lacerations are repaired, or lacerations complicated by inflammation of the uterine appendages are operated upon. In the first case the laceration caused no symptoms, and its repair relieved none; in the second case, if the patient escaped a peritonitis as the direct result of the operation, she continued to suffer from the morbid condition of the appendages.